Application/Control No. Applicant(s)/Patent under Index of Claims Reexamination 10/671,780 NAGANO ET AL. Examiner Art Unit Dung (Michael) T. Nguyen 2828 (Through numeral) Rejected Non-Elected **Appeal** N Cancelled

Restricted

Allowed

0

Objected

Interference

| Cla                    | im       | Date          |                 |          |          |          |          |          |        | Cla      | im          |       | Date     |                 |                 |          |          |        |         | CI       | aim          | Date |       |            |                    |          |           |  |          |          |          |          |        |
|------------------------|----------|---------------|-----------------|----------|----------|----------|----------|----------|--------|----------|-------------|-------|----------|-----------------|-----------------|----------|----------|--------|---------|----------|--------------|------|-------|------------|--------------------|----------|-----------|--|----------|----------|----------|----------|--------|
| Final                  | Original | 9/16/05       |                 |          |          |          |          |          |        |          |             | Final | Original |                 |                 |          |          |        |         |          |              |      | Final | Original   |                    |          |           |  |          |          |          |          |        |
| $\vdash$               | 1        | $\vdash$      |                 | $\dashv$ | +        | ┪        | -        | 十        | 十      | -        |             |       | 51       | ┢               | Н               | 十        | $\dashv$ | 十      | ╁       | ╁        |              |      |       | 101        | Н                  | $\dashv$ | $\dashv$  | $\vdash$   | $\dashv$ |          |          | $\dashv$ |        |
|                        | 2        | 1             | $\vdash$        | 十        | 7        | 7        |          | $\dashv$ | $\top$ | 7        |             |       | 52       | $\vdash$        |                 | 寸        | 十        | $\top$ | +       | 十        | <del> </del> |      |       | 102        |                    | $\dashv$ | $\dashv$  | $\Box$   | $\dashv$ |          | $\dashv$ |          | _      |
|                        | 3        | H             | $\Box$          | 十        | 7        | ┪        | $\neg$   | 7        | 1      | 7        |             |       | 53       |                 | Н               | 寸        | 7        | 1      | +       | †        | Г            |      |       | 103        |                    | $\neg$   | 一         | 一  | $\dashv$ |          | $\neg$   | ┪        | $\Box$ |
|                        | 4        | Π             | П               | T        | 寸        | 丁        | $\neg$   | 丁        | T      |          |             |       | 54       | T               | П               | T        | T        | T      | T       | Т        |              |      |       | 104        |                    | 丁        | П         |  | П        |          | $\Box$   | $\neg$   |        |
|                        | 5        | $\coprod$     |                 |          |          |          |          | $\Box$   | $\Box$ |          |             |       | 55       |                 |                 |          |          |        |         |          |              |      |       | 105        |                    |          | $\Box$    |  |          |          |          |          |        |
|                        | 6        |               |                 | $\perp$  |          |          |          |          |        |          |             |       | 56       |                 |                 | $\Box$   |          |        |         | L        |              |      |       | 106        |                    |          |           |  | $\Box$   |          |          |          |        |
|                        | 7        | Ш             | Ш               | _        | ┙        | _        | _        | _        |        | _[       |             |       | 57       | L               | Ш               | $\perp$  | _        | _      | $\perp$ | <u> </u> |              |      |       | 107        |                    | _        | $\Box$    | Ш  | Ш        |          |          | $\Box$   |        |
|                        | 8        | Щ             | Ш               | _        | _        | _        | _        | _        | _      | _        |             |       | 58       |                 | Ш               | _        | _        | _      | _       | _        | Ш            |      |       | 108        | $\Box$             | _        | _         | Щ  | $\perp$  |          | _        | _        |        |
|                        | 9        | 1             | $\vdash$        | 4        | 4        | -        | 4        | -        | 4      | 4        |             |       | 59       | _               | Ш               |          | -        |        | -       | ┼-       | Ш            |      |       | 109        |                    |          | $\dashv$  | $\vdash$   | $\dashv$ | _        | _        | 4        |        |
|                        | 10       | H             | ⊢               | -        | $\dashv$ | $\dashv$ | -        | +        | +      | _        |             |       | 60       | ⊢               | Н               | $\dashv$ | +        | -      | +       | ╄        | Н            |      |       | 110        | $\dashv$           | -        | -         | $\vdash$   | $\dashv$ |          | -        |          |        |
| <b>  </b>              | 11       | ${\mathbb H}$ | ⊢               | -        | 4        | -        | $\dashv$ | +        | +      | 4        |             |       | 61       | -               | $\vdash \vdash$ | $\dashv$ | $\dashv$ | +      | +       | ╁        | $\vdash$     |      |       | 111        | $\vdash$           | -        | $\dashv$  | $\dashv$   | $\dashv$ | _        | $\dashv$ | _        |        |
| $\vdash\vdash\vdash$   | 12       | ${\mathbb H}$ | $\vdash \vdash$ | +        | 4        |          | $\dashv$ | +        | +      | -        |             |       | 62<br>63 | $\vdash$        | H               | -        | +        | +      | +       | ╁        |              |      |       | 112<br>113 | $\vdash$           |          | $\dashv$  | $\vdash$   |          |          |          |          | _      |
| $\vdash\vdash\vdash$   | 13<br>14 | H             | ╁┼              | +        | ┥        | $\dashv$ | $\dashv$ | +        | +      | -        | $\ $        |       | 64       | $\vdash$        | $\vdash \vdash$ | $\dashv$ | +        | +      | +       | $\vdash$ | $\vdash$     |      |       | 114        | $\vdash$           | $\dashv$ | $\dashv$  | <del>                                     </del> | $\dashv$ | -        | -        |          |        |
| $\vdash$               | 15       | H             | $\vdash$        | $\dashv$ | ┥        | +        | +        | $\dashv$ | +      | -        |             |       | 65       | -               | $\vdash$        | -        | +        | +      | +       | $\vdash$ | H            |      | -     | 115        | $\vdash$           | -        | $\dashv$  | $\vdash$   | $\dashv$ |          | $\dashv$ | -        | _      |
| $\vdash$               | 16       | 4             | H               | $\dashv$ | +        | $\dashv$ | $\dashv$ | $\dashv$ | +      | $\dashv$ |             |       | 66       | 1               | H               | 十        | $\dashv$ | +      | +       | †        |              |      | -     | 116        | $\vdash$           | ᅥ        | $\dashv$  | $\dashv$   | $\dashv$ | $\neg$   |          | $\dashv$ |        |
| $\vdash$               | 17       | ┌             |                 | $\dashv$ | 7        | -        | 1        | -+       | +      | ၂        |             |       | 67       | <u> </u>        | ш               | 7        | 十        | +      | +       | †-       |              |      |       | 117        | $\dashv$           | _        | $\neg$    | П  | $\neg$   | $\neg$   |          | $\dashv$ | _      |
|                        | 18       |               |                 | 7        | 7        |          | 7        | _        | T      | 7        |             |       | 68       |                 | П               | 7        | 十        | _      | $\top$  | †        |              |      |       | 118        |                    | $\neg$   | $\neg$    |  | П        | $\neg$   |          |          |        |
|                        | 19       |               | Ħ               | 寸        | 寸        | 寸        | ┪        | $\dashv$ | $\top$ | 7        |             |       | 69       |                 | П               | $\neg$   | $\neg$   | 十      | $\top$  |          | П            |      |       | 119        |                    | $\neg$   | $\neg$    | $\Box$   | $\Box$   | $\neg$   |          |          |        |
|                        | 20       |               | $\Box$          |          |          |          |          | T        | $\Box$ |          |             |       | 70       |                 |                 |          | $\Box$   |        |         | Π        |              |      |       | 120        |                    | $\Box$   |           |  |          |          |          |          |        |
|                        | 21       |               |                 | $\Box$   |          |          |          |          |        |          |             |       | 71       |                 |                 |          |          |        |         |          |              |      |       | 121        |                    |          |           |  |          |          |          |          |        |
|                        | 22       |               | Ш               | $\perp$  |          |          |          | $\perp$  | ᆚ      | _        |             |       | 72       |                 | Ш               | _        | $\perp$  |        | ┸       | <u> </u> | Ш            |      |       | 122        | Ц                  | _        | $\Box$    |  |          |          | $\perp$  |          |        |
|                        | 23       |               |                 | 4        | _        | _        | _        | _        | _      | _[       |             |       | 73       |                 |                 | _        | _        | _      | 1_      | <u> </u> | Ш            |      |       | 123        |                    | _        |           |  |          | _        |          |          |        |
|                        | 24       | _             | $\sqcup$        | 4        | 4        | 4        | 4        | 4        | 4      | _        |             |       | 74       |                 | _               | 4        | 4        | 4      | 4       | ╄        | Щ            |      |       | 124        |                    | 4        | 4         |  | $\dashv$ | $\dashv$ | _        | _        |        |
|                        | 25       |               |                 |          | 4        |          |          | -        | _      | 4        |             |       | 75       | <u> </u>        |                 |          | -        | -      | _       | <b>↓</b> | Ш            |      |       | 125        | $\Box$             | _        |           | Щ  | -1       | _        | _        | _        |        |
|                        | 26       | _             | ╌               | +        | +        | $\dashv$ | +        | +        | +      | 4        |             |       | 76       | ⊢               |                 | $\dashv$ | +        | +      | +       | ╁╌       | -            |      |       | 126        | $\vdash$           | -        |           | $\dashv$   | $\dashv$ | {        | -1       |          |        |
|                        | 27       |               | $\vdash$        | $\dashv$ | +        | $\dashv$ | +        | $\dashv$ | ╬      | -[       |             |       | 77       | ⊢               | $\dashv$        | +        | +        | +      | ╀       | ╀        | Н            |      |       | 127<br>128 | $\dashv$           | -        | $\dashv$  | $\dot{\dashv}$                                   | $\dashv$ | $\dashv$ | -        | $\dashv$ |        |
| $\vdash$               | 28<br>29 | ⊢             | ₩               | $\dashv$ | $\dashv$ | -        | $\dashv$ | $\dashv$ | ╁      | -[       |             |       | 78<br>79 | H               | $\dashv$        | +        | $\dashv$ | +      | ╁       | ╁        | Н            |      |       | 129        | $\dashv$           | $\dashv$ | $\dashv$  | $\dashv$   | $\dashv$ |          | $\dashv$ |          |        |
| -                      | 30       | _             | ╁               | $\dashv$ | +        | $\dashv$ | ┰        | ╅        | +      | -1       |             |       | 80       | $\vdash$        | $\dashv$        | $\dashv$ | $\dashv$ | +      | ╅       | ╁╌       | Н            |      |       | 130        | $\dashv$           | $\dashv$ | $\dashv$  | $\dashv$   | $\dashv$ | $\dashv$ | ┥        | -        | —      |
|                        | 31       | _             | ╁┼              | $\dashv$ | ┪        | $\dashv$ | -        | $\dashv$ | +      | -        | ░╂          |       | 81       | $\vdash$        | $\dashv$        | ┪        | +        | +      | ╁       | ┢        | Н            |      |       | 131        | $\dashv$           | -        | $\dashv$  | $\dashv$   | $\dashv$ | $\dashv$ | ┪        | $\dashv$ |        |
|                        | 32       |               | H               | +        | 7        | $\dashv$ | 7        | $\dashv$ | +      | ⊣ૈ       | ŀ           |       | 82       | Н               | $\dashv$        | _        | $\dashv$ | $^{+}$ | +-      | $\vdash$ | Н            |      |       | 132        | $\dashv$           | $\dashv$ | $\dashv$  |  | $\dashv$ | ┪        | $\dashv$ | _        |        |
|                        | 33       |               | H               | 寸        | ✝        | 寸        | $\neg$   | ┪        | _      | 7        | ı           |       | 83       | П               | $\Box$          | 7        | 十        | T      | ╅       | T        |              |      |       | 133        | 7                  | 一        | ヿ         | $\neg$   | T        | 7        | ヿ        |          |        |
|                        | 34       | $\Box$        | $\Box$          | ┪        | ┪        | ╅        | $\neg$   | 寸        | ┪      | 7        | ऻ           |       | 84       |                 | $\Box$          | ┪        | 7        | 1      | 1       | Т        |              |      |       | 134        | $\neg$             | $\neg$   | ヿ         |  |          | ヿ        | ヿ        | $\neg$   | _      |
|                        | 35       |               |                 |          |          |          |          |          |        |          |             |       | 85       |                 |                 |          |          |        |         |          |              |      |       | 135        |                    |          |           |  |          |          | $\Box$   |          |        |
|                        | 36       |               |                 | $\Box$   | $\prod$  |          |          |          |        |          |             |       | 86       |                 |                 |          | $\Box$   |        |         |          |              |      |       | 136        |                    | $\Box$   | $\Box$    |  |          |          | $\Box$   |          |        |
|                        | 37       | L.            |                 | $\perp$  | $\perp$  |          | _        |          | ┙      | ╝        |             |       | 87       |                 | Ш               |          | ᆚ        | ┙      | ┸       | 上        | Ц            |      |       | 137        |                    |          | Ц         | $\sqcup$   |          |          | _        | _        |        |
| $\sqcup$               | 38       |               | Ш               | 4        | 4        | 4        | 4        | 4        | _      | 4        |             |       | 88       |                 | Ш               | _        | _        | 1      | $\perp$ | 1_       | Щ            |      |       | 138        | $oldsymbol{\perp}$ |          |           | _  |          | _        | _        | 4        |        |
| Ш                      | 39       | _             | $\sqcup$        | 4        | 4        | _        | 4        | _        | _ _    | _[       |             |       | 89       | Ш               | $\sqcup$        | $\dashv$ | _        | 4      | 4       | 1        | Щ            |      |       | 139        |                    | _        | _         | ↲  |          | _        | _        | _        |        |
| $\vdash \vdash$        | 40       | _             | $\vdash \vdash$ | 4        | 4        | 4        | 4        | $\dashv$ | 4      | 4        | $\parallel$ |       | 90       |                 | $\sqcup$        | -        | 4        | 4      | +       |          | Щ            |      |       | 140        | $\dashv$           | _        | 4         | 4  |          | 4        | _        | 4        | _      |
| $\vdash \vdash \vdash$ | 41       | _             | $\vdash$        | +        | 4        |          | +        | +        | +      | -[       | $\ $        |       | 91       | Н               | $\vdash \dashv$ | $\dashv$ | +        | +      | +-      | +-       | Н            |      |       | 141        | _                  | -        | 4         |  |          |          |          | 4        | _      |
| $\vdash$               | 42       | $\vdash$      | ╁               | +        | +        | -+       | +        | +        | +      | -        | $\ $        |       | 92       | <del> -</del> - | $\vdash$        | $\dashv$ | +        | +      | +       | -        | H            |      |       | 142        | $\vdash$           | $\dashv$ |           |  | $\dashv$ | $\dashv$ | $\dashv$ | $\dashv$ | —      |
| $\vdash$               | 43<br>44 |               | $\vdash$        | +        | +        | +        | +        | +        | +      | -        | $\ $        |       | 93<br>94 | $\vdash$        | $\vdash$        | $\dashv$ | +        | +      | +       | +        | Н            |      |       | 143<br>144 | -                  | -        | $\dashv$  | $\dashv$   | $\dashv$ | $\dashv$ | $\dashv$ | $\dashv$ |        |
| $\vdash$               | 45       | $\vdash$      | $\vdash$        | +        | +        | +        | +        | $\dashv$ | +      | -        | ∦           |       | 95       | H               | $\vdash$        | $\dashv$ | +        | +      | +-      | +        | Н            |      |       | 145        | $\dashv$           | $\dashv$ | $\dashv$  | $\dashv$   | $\dashv$ | $\dashv$ | $\dashv$ | -        | —      |
| $\vdash$               | 46       | -             | +               | $\dashv$ | +        | -+       | $\dashv$ | +        | +      | -        | ░∦          |       | 96       | Н               | $\vdash$        | $\dashv$ | +        | +      | +       | 1        | Н            |      |       | 146        |                    | $\dashv$ | $\dashv$  | $\dashv$   | $\dashv$ |          | +        | $\dashv$ | -      |
|                        | 47       |               | $\vdash$        | $\top$   | +        | 十        | +        | 十        | 十      |          | ∦           |       | 97       | $\vdash$        | $\dashv$        | $\dashv$ | 十        | 十      | +       | 1        | Н            |      |       | 147        |                    | $\dashv$ | $\dashv$  | $\dashv$   |          | $\dashv$ | $\dashv$ | $\dashv$ | —      |
| $\Box$                 | 48       |               | $\sqcap$        | 十        | ナ        | ┪        | 1        | 十        | 十      | 7        | ░           |       | 98       | П               | $\dashv$        | $\dashv$ | 十        | +      | +       | Т        | H            |      |       | 148        | $\dashv$           | 寸        | 7         | ┪  | ╛        | ┪        | 寸        | 7        | _      |
|                        | 49       |               | ΙT              | 寸        | す        | 寸        | 十        | 十        | $\top$ | 7        |             |       | 99       |                 |                 | $\dashv$ | _        | 1      | 1       | T        |              |      |       | 149        |                    | 寸        | 7         | $\dashv$   | $\dashv$ | $\dashv$ | 寸        | 寸        |        |
|                        | 50       |               | П               | T        | T        | 7        | $\top$   | $\neg$   | $\top$ | 7        | ्रा         |       | 100      |                 |                 | T        | 1        | 丁      | Τ       | 1        |              |      |       | 150        |                    |          | $\exists$ | ╛  | ╗        |          | $\neg$   | $\neg$   |        |